



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

front, and a hole *x* at the back to receive the spring catch *y* in the back rail, as shown fig. 14; beneath the seat are two pieces of webbing *w w* to limit the expansion of the two frames, and thereby to cause the spring catch to fall into its hole without any trouble: fig. 15 is a side view of the chair when folded.

No. VI.

APPARATUS TO ASSIST A WEAK KNEE JOINT.

The LARGE SILVER MEDAL was this session presented to W. BROCKEDON, Esq. Caroline-street, Bedford-square, for a Mechanical Apparatus to assist a weak Knee-joint; a model of which has been placed in the Society's repository.

A SON of Archdeacon Froude of Modbury, a friend of Mr. Brockedon, had from his childhood been afflicted with lameness, arising from a withered right thigh and leg. The limb is about four inches shorter than the other, and possesses no muscular power, being almost pendulous from the hip joint. He was accustomed to walk with great difficulty, in a bent, almost crouching position, with a stick in the left hand, and the right hand placed over the knee in order to prevent it from giving way by the weight of the body. The father requested Mr. Brockedon to endeavour to contrive some apparatus for the relief of the youth; the request was complied with, and the result was the instru-

ment about to be described, the efficacy of which has been ascertained by a trial of above two years.

A circular steel spring *j j*, figs. 5, 6, 7, plate VIII. goes round the waist, to the right hand side of which is fixed a slender iron bar *l m*, passing along the outside of the limb as low as the ankle; the end turns up a little from beneath the pantaloons, and terminates in a socket or ferrule *s*, capable of receiving the end of a common walking-stick. The iron has a joint *k* parallel to that of the withered thigh, and another joint *n* parallel to the knee joint. To that part of the iron which answers to the thigh is attached a broad semicircular spring *o*, which applies itself to the front of the middle of the withered thigh, making on it the same kind of pressure that the patient was before obliged to make by means of his hand. A sliding piece *p* slips over and secures the joint *n*, as shown in fig. 5, and is prevented from coming too low down by the stop *g*: by means of the stud *r* the piece may be drawn up as far as *o*, in which position the iron will bend at the joint *n*, and thus allow the patient to sit down with ease. When he wishes to walk, he places the end of a stick, held in the right-hand, into the socket *s*, fig. 5, and by the leverage thus obtained causes any degree of pressure that he pleases on the middle of the thigh, by means of the spring *o*. He is thus enabled to walk in a much more upright posture than before, can advance at the rate of two miles or more in an hour, and can persist in this exercise for some hours without intermission.